I claim:

1. A manway lift device comprises a right and a left upper hinge bracket, a right and a left lower hinge bracket, at least two smooth bore bushings, at least two internally threaded bushings and at least one adjustable biasing assembly, said upper hinge brackets arranged in a parallel relationship, spaced apart and rigidly attached to the manway cover to be lifted, said lower hinge brackets arranged in a parallel relationship, spaced apart and rigidly affixed to a manway collar assembly receiving said manway cover, said right upper hinge bracket aligned with said right lower hinge bracket thus constituting a right-aligned pair, said left upper hinge bracket aligned with said left lower hinge bracket thus constituting a left-aligned pair, said right-aligned pair receiving one of said smooth bore bushings and one of said internally threaded bushings therethrough from opposite directions thus comprising a bushing set, said left-aligned pair receiving one of said smooth bore bushings and one of said internally threaded bushings therethrough from opposite directions thus comprising a bushing set, at least one of said bushings having a boss on one end thereof protruding beyond an exterior face of said lower hinge bracket, said bushing having dogs disposed on the opposite end thereof, said dogs engaged in dog holes disposed through said upper hinge bracket, said smooth bore bushing of said bushing set receiving a bolt through the internal bore thereof, said internally threaded bushing of said bushing set threadedly receiving the threaded end of said bolt in said internally threaded bore thereof, said bolt thus rigidly affixing said bushing set to said upper hinge bracket and thereby rotatably affixing said manway cover to said manway collar, at least one boss having said adjustable biasing assembly associated therewith.

2. A manway lift device as in claim 1 wherein said adjustable biasing assembly comprises mating inner and outer housings and at least one flat wire spiral wound spring, said spring disposed between said inner and said outer housing, said outer housing rotatably engaged in said inner housing, said outer housing having at least one internal lug engageable with the outer end of said spring.

3. An adjustable biasing assembly as in claim 2 wherein said adjustable biasing assembly is associated with a fixed member comprising said lower hinge bracket, a rotatable

bushing set and a rotatable member comprising said upper hinge bracket for angularly biasing said rotatable member with respect to said fixed member.

4 An adjustable biasing assembly as in claim 3 wherein said inner housing is carried by said fixed member, said fixed member has said rotatable bushing set passing therethrough, said rotatable bushing set fixedly engaged in said rotatable member, said bushing set receiving and retaining the inner end of said spring therein.

5. An adjustable biasing assembly as in claim 4 wherein said fixed and rotatable members are biased by said spring in an opening relationship.

6. An adjustable biasing assembly as in claim 5 wherein said fixed and rotatable members have abutting stops to prevent relative movement beyond a predetermined angular displacement.

7. An adjustable biasing assembly as in claim 6 wherein said fixed member has a latch mechanism rotatably associated therewith, said latch mechanism comprising a latch arm having a latch hook on one end thereof, said latch hook engagable with a latch cusp carried by said rotatable member to arrest angular movement in a closing direction.

8. An adjustable biasing assembly as in claim 4 wherein said rotatable member is affixed to said manway cover and said fixed member is fixed to said manway collar, said rotatable member and said fixed member constituting a hinge pair for a manway access wherein said mating inner and outer housings associated with said rotatable and fixed members, respectively constitute a lift assist mechanism for said hinge pair of said manway access.

9. An adjustable biasing assembly as in claim 8 wherein the available torque of said biasing assembly is adjustable by disposing an additional flat wire spring between said mating housings.

10. An adjustable biasing assembly as in claim 2 wherein said outer housing is adjustably associated with said inner housing.

11. An adjustable biasing assembly as in claim 10 wherein said internal lug disposed within said outer housing engages the curved outer end of said flat wire spring.

12. An adjustable biasing assembly as in claim 11 wherein said outer housing has at least one stop disposed on an outer rim thereof adapted to engage internally disposed stops on said mating inner housing.

13. An adjustable biasing assembly as in claim 12 wherein said outer rim of said outer housing has six external stops.

14. An adjustable biasing assembly as in claim 13 wherein said mating inner housing has six internal stops.

15. A manway lift device as in claim 1 wherein an adjustable biasing assembly is retained on said left-aligned pair of members and an adjustable biasing assembly is retained on said right-aligned pair of members.

16. A manway lift device as in claim 1 wherein an adjustable biasing assembly is disposed on a boss protruding from each face of said left-aligned pair of members constituting a left lift assist assembly and an adjustable biasing assembly is disposed on a boss protruding from each face of said right-aligned pair of members thereby constituting a right lift assist assembly.

17. A manway lift device as in claim 1 wherein a manway retaining clamp is located between said left-aligned pair of members and said right-aligned pair of members.

18. A manway lift device as in claim 16 wherein said left lift assist assembly disposed on said left-aligned pair of members comprises two opposed co-acting biasing assemblies and said right lift assist assembly disposed on said right-aligned pair of members comprises two opposed co-acting biasing assemblies, said left lift assist assembly and said right lift assist assembly separately adjustable.

19. An adjustable biasing assembly comprises mating inner and outer housings and at least one flat wire spiral wound spring, said spring disposed between said inner and said outer housing, said outer housing rotatably engaged in said inner housing, said outer housing having at least one internal lug engageable with the outer end of said spring, said adjustable biasing assembly adapted to be installed on a rotatable bushing having an inner end of said spring fixedly retained therein, said inner housing adapted to be associated with a fixed member for biasing a movable member with respect to said fixed member.

20. A lift assist mechanism comprising a pair of rotatably associated members, a central bushing set and a biasing device, one of said members having said central bushing set rotatably associated therein, the other of said members having said central bushing set affixed thereto and rotatably pivotable upon a bearing surface of said bushing set, said rotatably associated members biased relative one to the other by said biasing device, said biasing device having one end thereof affixed to said central bushing set and the opposite end thereof affixed to said one of said members.